



California Reach Standards for Building Energy Efficiency

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Standards Development Office

California Energy Commission

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2013 Title 24, Part 11, Appendices A5 All Nonresidential Buildings



Prerequisites

- High Efficacy Outdoor Lighting
- Service Water Heating in Large Restaurants – 15% Solar Fraction or 95% water heater efficiency

Tier I

- 95% of Energy Budget – lighting OR mechanical
- 90% of Energy Budget – lighting AND mechanical

Tier II

- 90% of Energy Budget – lighting OR mechanical
- 85% of Energy Budget – lighting AND mechanical

If the permit is only for the building envelope, then just the prerequisites must be met.



2013 Title 24, Part 11 - Residential Changes since May 2012 Proposal

- Removal of Maximum Hot Water Pipe Volume from Prerequisites for Newly Constructed Residential
- Removal of QII from Prerequisites for Additions & Alterations to Existing Residential

**Draft
2013**



2013 Title 24, Part 11, Appendix A4 Newly Constructed Residential



Prerequisites

- Whole Building Design Rating
- Quality Insulation Inspection
- High Efficacy Indoor Lighting
- High Efficacy Outdoor Lighting

Tier I

- 85% of Energy Budget
- Design limit of no more than 10,000 kWh per year

Tier II

- 70% of Energy Budget
- Design limit of no more than 8,500 kWh per year

A proposed design exceeding the kWh/yr limit must use additional energy efficiency measures or on-site renewable energy system to comply with the limit.



Whole Building Design Rating

~ 45% of
energy use
regulated
by Part 6

Space Cooling
Space Heating
Water Heating

Refrigerator
Dishwasher
Range/Oven
Clothes Washer
Dryer
Interior Lighting
Outdoor Lighting
Miscellaneous Plug Loads



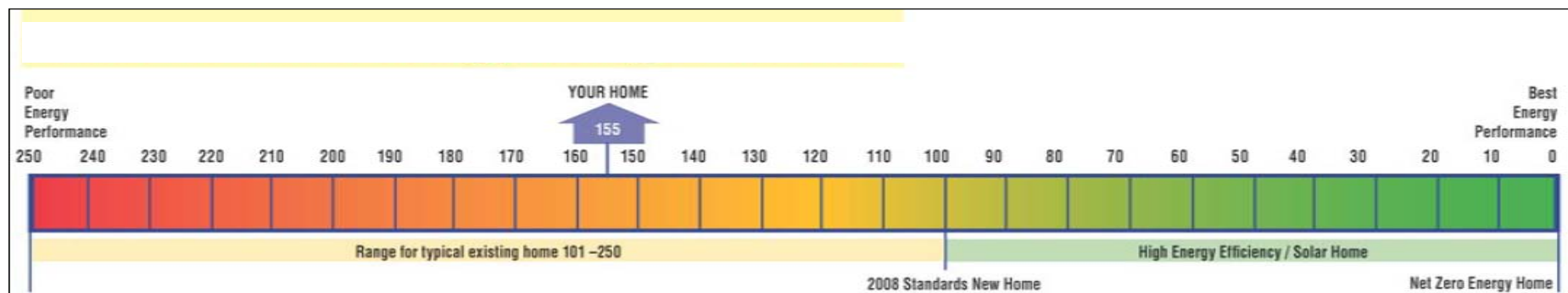
~ 55% of
energy
use not
regulated
by Part 6



2013 Title 24, Part 11, Appendix A4 Newly Constructed Residential Whole Building Design Rating

Draft
2013

- Calculated by Part 6 compliance software based on default values
- Compares to 2008 Building Energy Efficiency Standards
- Assumptions for loads not covered by Part 6 come from Chapter 4 of HERS Technical Manual





2013 Title 24, Part 11, Appendix A4 Additions and Alterations to Existing Residential Buildings



Prerequisites

- High Efficacy Indoor Lighting
- High Efficacy Outdoor Lighting

Tier I

- 95% of Energy Budget – one mechanical system
- 90% of Energy Budget – two or more mechanical systems

Tier II

- 90% of Energy Budget – one mechanical system
- 85% of Energy Budget – two or more mechanical systems

If the addition or alteration changes the envelope with no change to the mechanical systems, then no additional efficiency measures above Title 24, Part 6 are required.



What's Next

California Building Standards Commission GREEN Code
Advisory Committee

August 8, 2012 9:00 AM

California Building Standards Commission (CBSC)

2525 Natomas Park Drive, Conference Room 1, Suite 100

Sacramento, CA 95833



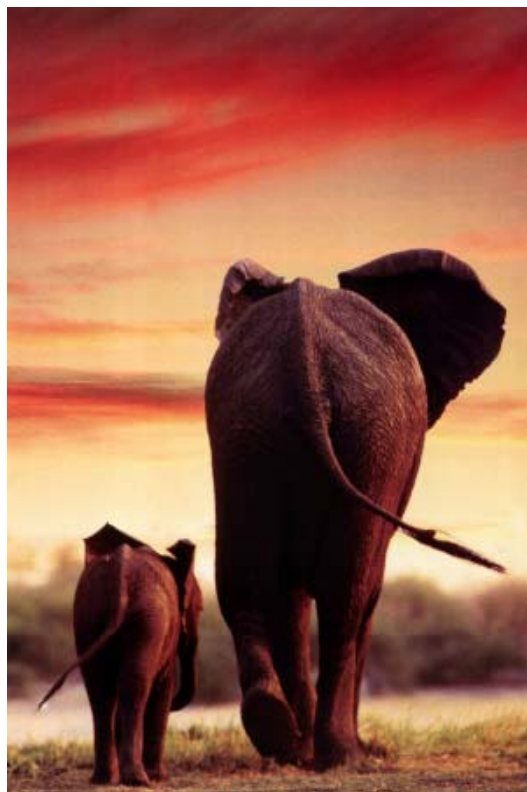
Comments

Comments should be emailed to DOCKET@energy.state.ca.us

Identify docket number 12-BSTD-1 in the subject line



The End



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